

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

**MAXELL, LTD.,**

*Plaintiff,*

**v.**

**ZHUHAI COSMX BATTERY CO., LTD.,**

*Defendant.*

**CIVIL ACTION NO. 6:21-cv-845-ADA**

**JURY TRIAL DEMANDED**

**CLAIM CONSTRUCTION ORDER**

The Court considered the parties claim construction briefs and the oral arguments held on August 19, 2022. ECF Nos. 28, 29, 30, 32, 33, 37. The Court hereby issues its claim construction order for the terms of U.S. Patent Nos. 8,691,446 (“’446 Patent”); 9,077,035 (“’035 Patent”); and 9,166,251 (“’251 Patent”).

**I. SUMMARY OF OPINION**

<b>Claim Term</b>	<b>Maxell’s Proposed Construction</b>	<b>Zhuhai’s Proposed Construction</b>	<b>Court’s Final Construction</b>
1. “the thermoplastic resin constitutes a shutdown layer formed of a heat-shrinkable microporous film”  ’251 Patent, Claim 1	Plain and ordinary meaning.	“the thermoplastic resin constitutes a shutdown layer formed of a heat-shrinkable microporous film having a thermal shrinkage ratio of 10% or less”	Plain and ordinary meaning.
2. “the positive electrode mixture layer has a density of at least 3.5 g/cm <sup>3</sup> ”  ’446 Patent, Claims 1, 3 ’019 Patent, Claim 1	Plain and ordinary meaning.	“the positive electrode mixture layer of a nonaqueous secondary battery has a density of at least 3.7 g/cm <sup>3</sup> ”	Plain and ordinary meaning.

3. “wherein said at least two lithium-containing transition metal oxides having different average particle sizes have different compositions of elements between them”  '446 Patent, Claims 1, 3 '019 Patent, Claim 3	Plain and ordinary meaning.	“wherein said at least two lithium containing transition metal oxides having different average particle sizes do not share all of the same chemical elements”	Plain and ordinary meaning.
4. “and the nonaqueous electrode mixture contains a compound having at least two nitrile groups in the molecule”  '019 Patent, Claim 1	“and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule”	Plain and ordinary meaning.	“and the nonaqueous electrolyte contains a compound having at least two nitrile groups in the molecule”

## **II. Term 1: “the thermoplastic resin constitutes a shutdown layer formed of a heat-shrinkable microporous film”**

The Court adopts the plain and ordinary meaning of this term. The Court rejects Zhuhai’s proposal because it improperly import limitations from the specification instead of construing the meaning of the words in the claim. The applicant knew how to claim a shrinkage ratio, such as 10% in claim 2, but did not include any ratio in claim 1. The Court will not add this limitation.

During oral argument, Zhuhai’s counsel sought clarification about the degree of heat shrinkage. The claim requires “heat-shrinkable microporous film.” This language does not explicitly recite any degree of heat shrinkage, only that the microporous film must be “heat-shrinkable.”

## **III. Term 2: “the positive electrode mixture layer has a density of at least 3.5 g/cm<sup>3</sup>”**

The parties’ dispute amounts to whether the “3.5” in the claim should be changed to “3.7.” The Court finds no reason to do so. In its full context, the prosecution history advanced by Zhuhai

does not require the Court to change 3.5 to 3.7, and there is no clear disavowal of the claim scope between 3.5 and 3.7.

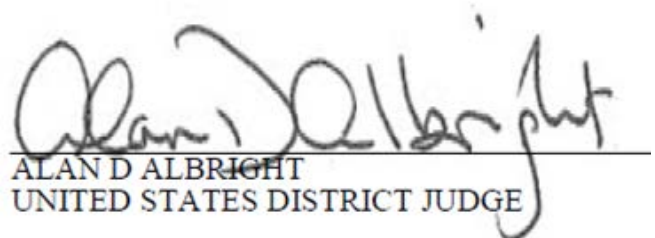
**IV. Term 3: “wherein said at least two lithium-containing transition metal oxides having different average particle sizes have different compositions of elements between them”**

The parties’ dispute about this term boils down to what it means for molecules to have “different compositions of elements.” Under the plain and ordinary meaning of this phrase, a person of ordinary skill in the art would consider hydrogen gas ( $H_2$ ), water ( $H_2O$ ), and hydrogen peroxide ( $H_2O_2$ ) to be different compositions of elements. The Court will not adopt a definition that contradicts this example. The Court rejects Zhuhai’s construction for implying that water and hydrogen peroxide are the same compositions of elements because they share all of the same elements of hydrogen and oxygen.

**V. Term 4: “and the nonaqueous electrode mixture contains a compound having at least two nitrile groups in the molecule”**

The Court adopts Plaintiff’s proposal to judicially correct “nonaqueous electrode mixture” in this term to “nonaqueous electrolyte.” This is an obvious error to the Court. Antecedent basis supports the correction, and the specification repeatedly supports the nonaqueous electrolyte containing more than one nitrile group. *See, e.g.*, ’019 Patent at 3:3-4; 3:21-23; 4:36-38; 4:44-46; 5:13-14; 5:30-31. The Court would not have made this correction if Zhuhai identified any example of the specification stating that a nonaqueous electrode mixture contains a compound having at least two nitrile groups in the molecule, but Zhuhai did not. At best, Zhuhai identified references to electrode mixtures, but none are described as having at least two nitrile groups in the molecule.

SIGNED this 19th day of August, 2022.

  
ALAN D ALBRIGHT  
UNITED STATES DISTRICT JUDGE